

CLAIMS

1. A method on a member of a computing system group for substituting members, the method comprising:
 - replacing an old member with a new member, wherein the old member is assigned to a subgroup and controls at least one resource;
 - determining if the new member is within the subgroup;
 - if the new member is within the subgroup, configuring the new member to control resources that were controlled by the old member;
 - if the new member is not in the subgroup, replacing the at least one resource with resources controlled by the new member; and
 - configuring a computing group communications system to accommodate replacement of the old member by the new member.
2. The method according to claim 1, wherein the old member is a primary member of a computing system group.
- 15 3. The method according to claim 1, wherein the method is performed in response to a failure of the old member.
4. The method according to claim 1, wherein the new member is in the subgroup, the old member was a primary member and the new member becomes a backup member.
- 20 5. The method according to claim 1, wherein the old member is a backup member.
6. The method according to claim 1, wherein the method is performed in response to a failure of at least one of the at least one resources.

7. The method according to claim 6, wherein the new member is selected based upon a new resource that is selected to be substituted for the at least one of the at least one resources.

8. A member of a computing system group, the member comprising:
a group management component for:

selecting a new member to replace an old member, wherein the old member is assigned to a subgroup and controls at least one resource; and

5 determining if the new member is within the subgroup;
a resource controller for:

configuring the new member to control resources that were controlled by the old member if the new member is within the subgroup; and

10 replacing the at least one resource with resources controlled by the new member if the new member is not in the subgroup; and
a communications controller for configuring a computing group communications system to accommodate replacement of the old member with the new member.

9. The member according to claim 8, wherein the old member is a primary
15 member of a computing system group.

10. The member according to claim 8, wherein the group management component, the resource controller and the communications controller operate in response to a failure of the old member.

11. The member according to claim 8, wherein the new member is in the
20 subgroup, the old member was a primary member and the group management component operates to cause the new member to become a backup member.

12. The member according to claim 8, wherein the old member is a backup member.

13. The member according to claim 8, wherein the group management component, the resource controller and the communications controller operate in response to a failure of at least one of the at least one resources.
14. The member according to claim 13, wherein the group management controller selects the new member based upon a new resource that is selected to be substituted for the at least one of the at least one resources.

15. A signal bearing medium including a program which, when executed by a processor, performs operations for substituting members, the operations comprising:

- selecting a new member to replace an old member, wherein the old member
- 5 is assigned to a subgroup and controls at least one resource;
- determining if the new member is within the subgroup;
- if the new member is within the subgroup, configuring the new member to control resources that were controlled by the old member;
- if the new member is not in the subgroup, replacing the at least one resource
- 10 with resources controlled by the new member;
- configuring a computing group communications system to accommodate replacement of the old member with the new member.

16. The signal bearing medium of claim 15, wherein the old member is a primary member of a computing system group.

15 17. The signal bearing medium of claim 15, wherein the operations are performed in response to a failure of the old member.

18. The signal bearing medium of claim 15, wherein the new member is in the subgroup, the old member was a primary member and the new member becomes a backup member.

20 19. The signal bearing medium of claim 15, wherein the old member is a backup member.

20. The signal bearing medium of claim 15, wherein the operations are performed in response to a failure of at least one of the at least one resources.

21. The signal bearing medium of claim 20, wherein the new member is selected based upon a new resource that is selected to be substituted for the at least one of the at least one resources.